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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,754	06/30/2003	Robert Taylor Scott		7181

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EXAMINER

HARRIS, KATRINA B

ART UNIT PAPER NUMBER

3747

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,754

Applicant(s)

SCOTT, ROBERT TAYLOR

Examiner

Katrina B. Harris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 12-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The following is a first action on the merits of application serial no. 10/608,754 filed June 30, 2003.

Claim Objections

1. Claim 1 is objected to because of the following informalities: the words "What I claim as my invention" should be deleted. The claims should only contain what the invention is claiming as his invention. Appropriate correction is required.
2. Claims 12-14 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Guenther (DE4327490). Guenther discloses a cam actuated piston/plunger type cylindrical shaped valve (21,22) operating in a reciprocal fashion installed in a companion cylinder and working in conjunction with ported passages in the valve

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cylinder wall to open and close related air passages that govern the intake and exhaust functions of a multi-valve internal combustion engine.

Regarding claim 2, a piston/plunger fitted to a separate ported liner and installed in the engine as a replaceable unit.

Regarding claim 3, installed in the working cylinder head of overhead valve design engines

Regarding claim 4, installed in the block of side valve design engines.

Regarding claim 5, cam actuated using a cam lobe (17,18) shaped where the high point of the lobe provides and maintains positive valve movement to the closure position and the low point of the cam lobe permits the valve under spring tension (19,20) to move to the open position.

Regarding claim 6, actuated by direct cam action or through a levered arrangement.

Regarding claim 7, uses valve diameter sizes in overhead designs that extend the valve edge past or outside the bore area of the working piston (5).

Regarding claim 8, uses valves sized to fit within the bore area of the working piston (5) in overhead designs.

Regarding claim 9, fitted with 1 or more snap type piston rings of gap sealing design where the gap area and wall area are both sealed.

Regarding claim 10, made of metal.

Regarding claim 11, made of material other than metal.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 2,033,128 issued to Edds is a similar system having a piston liner. U.S. Patent No. 2,119,226 issued to Ernst is a similar system having a cam actuated piston. Japanese Patent No. JP359226215 issued to Takahasi is a very similar cam actuated system.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katrina B. Harris whose telephone number is 703-308-8323. The examiner can normally be reached on 7:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on 703-308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Henry C. Yuen
Supervisory Patent Examiner
Group 3700